

What is claimed is:

1. A protein supplemented beverage composition comprising a modified oilseed material, wherein the modified oilseed material comprises at least about 85 wt. % protein on a dry solids basis; and the modified oilseed material has an MW_{50} of at least about 200 kDa and at least about 40 wt. % of the protein in a 50 mg sample of the modified oilseed material is soluble in 1.0 mL water at 25°C.

2. The beverage composition of claim 1 wherein said beverage composition is a pasteurized beverage composition.

3. The beverage composition of claim 2 further comprising carrageenan, microcrystalline cellulose or a mixture thereof.

4. The beverage composition of claim 1 wherein said beverage composition has a pH of about 3.5 to 5.0.

5. The beverage composition of claim 4 further comprising pectin microcrystalline cellulose or a mixture thereof.

6. The beverage composition of claim 1 comprising about 0.1 to 10 wt. % protein.

7. The beverage composition of claim 1 comprising about 5 to 60 wt. % protein on a dry solids basis.

8. A protein supplemented beverage composition comprising a modified oilseed material, wherein the modified oilseed material is produced by a process which includes:

extracting oilseed material with an aqueous alkaline solution to form a suspension of particulate matter in an oilseed extract; and

passing the extract through a filtration system including a microporous membrane to produce a permeate and a protein-enriched retentate, wherein the microporous membrane has a filtering surface with a contact angle of no more than 30 degrees.

9. The beverage composition of claim 8 wherein the modified oilseed material is produced by a process which includes:

extracting soybean material at 20°C to 60°C with an aqueous solution having a pH of 7.5 to 10.0 to form a mixture of particulate matter in an alkaline extract solution;

removing at least a portion of the particulate matter from the mixture to form a clarified extract;

passing the clarified extract at 55°C to 60°C through a filtration system including a microporous modified polyacrylonitrile membrane to produce a permeate and a protein-enriched retentate, wherein the microporous modified polyacrylonitrile membrane has an MWCO of 25,000 to 500,000 and a filtering surface with a contact angle of no more than 30 degrees; and

diafiltering the protein-enriched retentate through the filtration system to produce a protein-containing diafiltration retentate.

10. The beverage composition of claim 9 wherein the modified oilseed material is produced by a process which further includes heating the diafiltration retentate to at least 75°C for a sufficient time to form a pasteurized retentate.

11. The beverage composition of claim 9 wherein the modified oilseed material is produced by a process which includes extracting the soybean material at 20°C to 60°C for no more than one hour with the aqueous solution to form the mixture.

12. A protein supplemented beverage dry mix comprising a oilseed protein material which includes at least about 85 wt. % protein on a dry solids basis; wherein the oilseed protein material has an MW_{50} of at least about 200 kDa and at least about 40 wt. % of the protein in a 50 mg sample of the modified soybean material is soluble in 1.0 mL water at 25°C.

13. The beverage dry mix of claim 12 comprising about 5 to 50 wt. % protein on a dry solids basis.

14. The beverage dry mix of claim 12 further comprising about 0.5 to 8 wt. % water.

15. A protein supplemented beverage composition comprising a modified soybean material, sugar, water and a suspending agent;

wherein the modified soybean material comprises at least 90 wt. % protein on a dry solids basis; and the modified soybean material has an MW_{50} of at least 200 kDa and at least 40 wt. % of the protein in a 50 mg sample of the modified soybean material is soluble in 1.0 mL water at 25°C.

16. The beverage composition of claim 15 wherein the suspending agent includes at least one of starch, gelatin, pectin, carrageenan and cellulose.

17. The beverage composition of claim 15 wherein suspending agent includes polysaccharide, polyuronide or a mixture thereof.

18. A protein supplemented beverage composition comprising a modified oilseed material, wherein the modified oilseed material comprises at least about 85 wt. % protein on a dry solids basis; and the modified oilseed material has a bacterial load of no more than 50,000 cfu/g and a melting temperature of at least 87°C.

19. A protein supplemented beverage composition comprising a modified oilseed material, wherein the modified oilseed material comprises at least about 85 wt. % protein on a dry solids basis; and the modified oilseed material has an MW_{50} of at least about 200 kDa and a turbidity factor of no more than about 0.95 at 500 nm.

20. A protein supplemented beverage composition comprising a modified oilseed material, wherein the modified oilseed material comprises at least about 85 wt. % protein on

a dry solids basis; and the modified oilseed material has an MW_{50} of at least about 200 kDa and has an NSI of at least about 80.

21. A protein supplemented beverage composition comprising a modified oilseed material, wherein the modified oilseed material comprises at least about 85 wt. % protein on a dry solids basis; at least about 40 wt. % of the modified oilseed material has an apparent molecular weight of at least 300 kDa; and the modified oilseed material has a turbidity factor of no more than about 0.95 at 500 nm.

22. A protein supplemented beverage composition comprising a modified oilseed material, wherein the modified oilseed material comprises at least about 85 wt. % protein on a dry solids basis; the modified oilseed material has an MW_{50} of at least 200 kDa and at least 40 wt. % of the protein in a 50 mg sample of the modified oilseed material is soluble in 1.0 mL water at 25°C.

23. A protein supplemented beverage composition comprising a modified oilseed material, wherein the modified oilseed material comprises at least about 85 wt. % protein on a dry solids basis; and the modified oilseed material has a bacterial load of no more than 50,000 cfu/g and a melting temperature of at least 87°C.

24. A protein supplemented beverage composition comprising a modified oilseed material, wherein the modified oilseed material comprises at least about 85 wt. % protein on a dry solids basis; at least about 40 wt. % of the modified oilseed material has an apparent molecular weight of at least 300 kDa; and at least about 40 wt. % of the protein in a 50 mg sample of the modified oilseed material is soluble in 1.0 mL water at 25°C.

25. The beverage composition of claim 24 wherein the modified oilseed material has a turbidity factor of no more than about 0.95 at 500 nm.

26. The beverage composition of claim 24 wherein the modified oilseed material has an NSI of at least about 80.

27. The beverage composition of claim 24 wherein the modified oilseed material is a modified soybean material which includes at least about 90 wt. % protein on a dry solids basis.

28. The beverage composition of claim 24 wherein the modified oilseed material has a melting temperature of at least about 87°C.

29. The beverage composition of claim 24 wherein the modified oilseed material has an MW₅₀ of at least about 400 kDa.

30. The beverage composition of claim 24 wherein the modified oilseed material includes at least about 1.4 wt. % cysteine as a percentage of total protein.

31. The beverage composition of claim 24 wherein the modified oilseed material is a soy protein isolate having a substantially bland taste.

32. The beverage composition of claim 24 wherein the modified oilseed material has a dry Gardner L value of at least about 85.

33. The beverage composition of claim 24 the modified oilseed material has a bacterial load of no more than about 50,000 cfu/g.

34. The beverage composition of claim 24 wherein the modified oilseed material has a latent heat of at least about 5 joules/g.

35. The beverage composition of claim 24 wherein the modified oilseed material has a ratio of sodium ions to a total amount of sodium, calcium and potassium ions of no more than about 0.5.

36. The beverage composition of claim 24 wherein the modified oilseed material has no more than about 7000 mg/kg (dsb) sodium ions.

37. A protein supplemented beverage composition comprising a modified soybean material and a suspension agent; wherein the modified soybean material comprises at least about 90 wt. % protein on a dry solids basis; and the modified oilseed material has

an MW₅₀ of at least about 400 kDa and at least about 40 wt. % of the protein in a 50 mg sample of the modified soybean material is soluble in 1.0 mL water at 25°C.

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